Native Plants
Do you know...

Where we get our water?

Where we store our water?
How much water our city uses per year?
What programs we offer?
How much water we have saved over the years?
Colorado is a headwaters state, with the majority of the state’s rivers beginning high in the Rocky Mountains as snowmelt. One of the benefits of living in a state that relies primarily on surface water is that unlike groundwater, surface water is a renewable water source.

One of the drawbacks is that precipitation levels vary greatly from year-to-year making the majority of the state’s water supply relatively unpredictable – and highly prone to drought.
Aurora’s water system starts nearly 180 miles away and includes the use of reservoirs, the natural river system, pipes, tunnels and pumps, all of which help us pull the water we own from our three river basins and deliver it to Aurora.

Aurora receives 25% of its water supply from the Colorado, 25% from the Arkansas and 50% from the South Platte river basins.

Homestake  Rampart
Turquoise  Quincy
Twin  Pueblo
Spinney Mountain  Aurora
Jefferson  Meredith
Strontia Springs  Henry
...how much water we use as a city?

The average annual distribution for the past three years is 16.6 billion gallons annually. About half of that water is used outdoors. Aurora has a semi-arid climate, and our snow and rain levels are about half of the average annual precipitation for the United States, so it’s important that we all do our part to help conserve water.
...we offer programs to help you save water and money?

INDOOR PROGRAMS
• Free indoor water assessment
• Ultra-high-efficiency toilet rebate
• Low-income water efficiency program

OUTDOOR PROGRAMS
• Free landscape designs and rebates
• Free automatic sprinkler system assessments and rebates
• Customize your watering schedule
• Water conservation classes
• Gardening and volunteering
...how much water the conservation division has saved?

448 million gallons or 7.2 billion cups of water

Combined water savings for 2016, 2017, 2018
Definition of native plant:
Plants that have existed prior to European settlement
Lives and grows naturally without direct or indirect human intervention
Cultivars that have been bred for ‘improvements’, when natives are not available at garden nursery
Semi-arid region from the plains to foothills and montane

Definition of local native plant:
Ecotype of native plant species grown from genetically local plant material that is adapted to a specific set of environmental conditions.
Many natural ecosystems exist inside in our state. The aspen and ponderosa pine of the montane and the Utah juniper and scrub oak of the semi-desert shrublands cover large majorities of our land area. There are also the foothills, subalpine and alpine ecosystems.

Most of the plants in these areas are native, although many invasive species have crept in or have been introduced.

Due to the diversity of these ecosystems and the sunlight and weather conditions, not all native plants will thrive in an Aurora landscape. One notorious native plant that we love, but won't thrive here, is the aspen. They require a lot of water and don't like the arid Front Range climate. This stress makes them vulnerable to pests and disease.
The natural ecosystem of Aurora is that of the high plains/prairie. This ecosystem is primarily made of short-grass species. The climate is hot in the summer and highly variable in the winter. We receive about 15” of precipitation each year. It’s very windy. Few trees provide any shade, except along waterways. Even under these harsh conditions, however, many plant species thrive.

The benefits of using native species:
Adaptability – These plants evolved over thousands of years. They are used to our wild extremes and have adapted to the variations in climate, soil composition, insect pests, browsers, and fire.

Environmental – These plants flourish without fertilizers or synthetic pesticides which means we can decrease the amount of pollutants in our runoff. Also, many of these plants are drought tolerant, which conserves water.

Biodiversity – These plants provide food and habitat for the native wildlife that are a part of a healthy ecosystem. Planting a native landscape deepens our appreciation of natural communities and remind us of their intrinsic value.
Before you plant:

Work with your existing conditions. If you have sandy soil, plant natives that prefer sandy soil. If you have clayey soil, plant natives that don’t need a lot of drainage.

Add soil amendment only as a response to the kind of plants you’re designing with. Some natives don’t need any, but will actually suffer if the soil has too much organic matter.

Supplemental water? Any plant will need to be watered while it’s establishing its root system. After that, provide minimal irrigation once or twice a month. For plants from the z-zone plant list, watering can be tapered down to zero once established.

Know the plant’s growth habit so that you’re designing with it correctly and planting it appropriately.
Native Grasses
In design, grasses have a multitude of uses in a landscape: meadow, alternative groundcover, hedge, specimen, large grouping to anchor, edging, etc.

In the next slides, you will be introduced to some of our favorite native grasses.
Panicum virgatum
Switch Grass

Ornamental, bunch-form grass
Hardy to 7000’
Full sun, part shade
Very tolerant poor soils, flooding and drought
Mature size is 4’ high x 2’ wide
Open, fine textured panicle
Small, shiny seeds, pink blooms
Bouteloua gracilis
Blue Grama

The Colorado State grass
Bunch-form grass but over time can form a low-density turf
Mature height is 8-14”
Available as seed or plugs
Plant June – August
Mow or leave standing
Does not tolerate traffic
Bouteloua curtipendula
Side Oats Grama

Ornamental, bunch-form grass
Mature size is 2’ high and 1’ wide.
Flowers and seeds on one side of stem
Seeds are a showy orange
Bouteloua dactyloides
Buffalograss

Warm season grass
Turf-form
Mature height is 3-5”
Dormant October to May
Reproduces from stolons (above-ground roots) and seed
Schizachyrium scoparium
Little Bluestem

Bunch-form grass
Native to prairies, dry hills, open woods
Prefers full sun
Mature size is 4’ high and 2’ wide
Turns a beautiful copper/red in fall
Will tolerate poor soil
Spreads readily via seed
Andropogon gerardii
Big Bluestem

A dominant species in tall grass prairies
Clump forming
Mature size is 5-6’ tall and 2-3’ spread
beautiful summer and fall colors
Prefers full sun
Sporobolus heterolepsis
Prairie Dropseed

Mature size is up to 2’ tall and 2 ½ wide
Prefers full sun
Warm season grass
Bunch-form grass
Flowers in August and in September turns orange-rust color with frost
First species introduced in prairie restoration
**Sorghastrum nutans**
Indian Grass

Mature size is 6’ tall and 3’ wide
Showy, dark yellow to tan flowers are high above clumps of blue-green foliage
Foliage turns purple in fall
Good winter interest
May readily reseed
Native Shrubs
Shrubs and small trees are the mainstay of a xeric landscape. They provide great structure, anchor your design, and greatly reduce garden maintenance. Choose shrubs that provide multi-season interest.

In the next slides, you will be introduced to some of our favorite native shrubs.
Rosa woodsii
Wood’s Rose

Blooms from June through August
Adaptable to full or part sun
Thorny
Up to 6’ tall
Readily spreads to make dense stands and brambles
Best for large areas
Matures up to a size of 6’ x 6’
Very xeric
Glossy, dark green leaves
Dense, round shrub
Clusters of yellow flowers in spring
Red fruits can be used as a lemony spice or to make lemonade
Arctostaphylos uva-ursi
Kinnikinnik

Long-lived evergreen
Mature size is 18” high and up to 4’ wide
Very xeric
Urn shaped blooms late spring
Performs well in shade
Highly drought tolerant evergreen
Mature height is up to 2’ tall and spreads up to 5’
Likes part sun to full shade
Bright yellow, fragrant blooms mid-spring produce blue-purple fruit
Gorgeous red and purple fall color
Cercocarpus ledifolius
Mountain Mahogany

Long-lived, very xeric
Mature size is up to 8’ tall and 6’ wide
Multiple stem
Inconspicuous flower
Fuzzy, twisted seed tails in late summer
Adapted to poor soils
Mature size is up to 6’ high by 6’ wide
Prefers full sun
Gray-green oval leaves form rounded shrub
Profuse white flowers in late spring
Purple-black fruit and red fall foliage
‘Pawnee Buttes’ is a great groundcover form
Mature size is 3’-6’ x 3’-6’
Full sun
Sparsely covered by small, finely divided leaves
Single white, rose-like flowers all summer along side rose colored, feathery, tailed seeds
Needs no water after establishment
Amelanchier alnifolia
Serviceberry

Approx. 12’ x 10’
Sun to part shade
Hardy to 10,000’
Multi-stem clump form
Covered in showy white flowers early spring
Beautiful fall color
**Ericameria nauseosa**  
**Rabbitbrush**

Blooms bright yellow late summer to early fall  
Mature size is 7’ tall x 5’ wide but can grow larger if watered  
Full sun, well drained soil  
Attracts butterflies  
Does not need water after it’s established
Artemisia tridentata
Big Sagebrush

Mature size has a wide range of 3’-12’ wide to 3’-6’ high
Full sun, hardy to 10,00’
Highly aromatic
Adds blue-gray color to the landscape
Coarse, rigid structure
Needs minimal watering after establishment
Rubus deliciosus
Boulder Raspberry

Hardy to 9,000’
Maturity is about 5’ x 5’
Arching branches form loose, vase-shaped shrub
Large single white flowers in late spring
Thimble-like berries late summer
Symphoricarpos albus
Common Snowberry

Mature size is about 4’x 4’
Prefers full sun
Blooms early summer with tiny white/pink bell shaped flowers
Long lived
Snow white berries into winter
Adaptable to multiple soil types
Native Perennials
Perennials provide wonderful habitat for native wildlife. Keep in mind the following:

- Creating environmental conditions drastically different from those of the plant’s natural habitat can effect plant growth and longevity.
- Growth habit may change the plant’s form from erect to sprawling

In the next slides, you will be introduced to some of our favorite native perennials.
Asclepias speciosa
Showy Milkweed

Mature height is up to 6’ tall
Prefers full sun
Moderately drought tolerant
Adaptable to soil type
Blooms early summer
Abundant seed production
Critical Monarch butterfly habitat
Well-drained, sunny location
2’ tall x 1.5’ wide
Very xeric
Blooms early summer through fall
Reseeds readily
Does not need water after establishment
Oenothera caespitosa
White Evening Primrose

Low grower to 8”
Very xeric
Blooms late spring to late summer
Flowers open white and turn pink with age
Staple of xeric landscapes
Up to 2’ tall and wide
Needs full sun
Blooms all summer; will bloom for 5 months with deadheading
Does well in poor soil
Liatris punctata
Gayfeather

Mature size is up to 30” high by 18” wide
Wants full sun
Blooms June-August
Leave up for winter interest
Needs some water for good flowering
**Penstemon whippleanus**
Whipple’s Penstemon

Moderately drought tolerant
Up to 3’ tall
Beautiful, lesser known for landscaping
Blooms mid to late summer
Will tolerate some shade
**Solidago missouriensis**

Goldenrod

Mature size is 30” tall by 36” wide
Very drought tolerant
Will tolerate part shade
Blooms June through September
Does well in places with poor soil
Antennaria rosea
Pussy Toes

Spreads at maturity to 2’ across and 4-6” tall
Full sun
Excellent water-wise groundcover, forming dense blue-green mats and between flagstone
Blooms pink/white early summer
Berlandiera lyrata
Chocolate Flower

Mature size is up to 18” high and 12” wide
Full sun, very low water, shade intolerant
Self sowing but not invasive
Chocolate-like fragrance
Erect, then droops with age
Wants good drainage
Callirhoe involucrata
Prairie Winecups

Up to 1’ tall and 3’ wide
Full sun
Very low water
Decumbent, good as ground cover or hanging over walls. Best when planted amongst other plants with larger foliage
Blooms are cup shaped, magenta. Blooms all summer
Scutellaria brittonii
Skullcap

Mature size is about 8” high by 8” wide
Full sun, good drainage
Excellent choice for rock garden landscape
Native to dry, gravelly areas in foothills
Blooms March to June
Prunella vulgaris
Self-Heal

Up to 1’ tall and wide
Tolerates dry shade
Reblooms with deadheading
Needs moderate water
Well behaved, mounding habit
Eriogonum umbellatum
Sulphur Flower

Mature size is about 1’ by 1’
Full sun, very drought tolerant
Mounding habit
Blooms early summer
Foliage turns burgundy in autumn
Gaura sp.
Whirling Butterflies

Mature size is 18” tall by 2-3” wide
Dry, sunny location
Native habitat: plains to montane
Attractive pink bloom
Cultivars come in white or pink
Recommended Titles

- **Natural by Design** by Judith Phillips
- **Plants for Natural Gardens** by Judith Phillips
- **Waterwise Landscaping** by Jim Knopf
- **Native Plants for High Elevation Gardening** by Janice Busco and Nancy Morin
- **Gardening With Grasses** by Piet Oudolf and Michael King
- **The Forgotten Pollinators** by Buchmann & Nabhan
- **USDA Natural Resources Conservation Service Plant Database**
Let us know how we’re doing

Please take just a few minutes to evaluate this class. We hope you enjoyed it.

https://www.surveymonkey.com/r/AuroraWater
Thank You

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Please visit our website for additional information at www.auroragov.org